

RESEARCH, DEVELOPMENT & TECHNOLOGY TRANSFER QUARTERLY PROGRESS REPORT

Wisconsin Department of Transportation
DT1241 7/2010

INSTRUCTIONS:

Research project investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

WisDOT research program category: <input type="checkbox"/> Policy research <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Wisconsin Highway Research Program <input type="checkbox"/> Pooled fund TPF#	Report period year: <input type="checkbox"/> Quarter 1 (Jan 1 – Mar 31) <input type="checkbox"/> Quarter 2 (Apr 1 – Jun 30) <input checked="" type="checkbox"/> Quarter 3 (Jul 1 – Sep 30) <input type="checkbox"/> Quarter 4 (Oct 1 – Dec 31)
Project title: Foundation Movements for Transportation Structures			
Project investigator: James Schneider		Phone: 608-890-2662	E-mail: jamess@cae.wisc.edu
Administrative contact: Peg Lafky		Phone: 608-266-3633	E-mail:
WisDOT contact: Robert Arndorfer		Phone: 608-246-7940	E-mail:
WisDOT project ID: 0092-09-05	Other project ID:	Project start date: 2/5/2009	
Original end date: 2/5/2012	Current end date: 2/5/2012	Number of extensions: 0	

Project schedule status:

☐ On schedule ☐ On revised schedule ☐ Ahead of schedule ☒ Behind schedule

Project budget status:

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
\$109,893.00	\$202.29	\$42,921.06	39%	36%

Project description:

The overall research objective of this study is to produce a document summarizing simplified design procedures for evaluation of foundation movements for transportation structures within the LRFD framework. Recommendations for the measurement and selection of input parameters for those design procedures will also be provided.

Progress this quarter (includes meetings, work plan status, contract status, significant progress, etc.):

The main activities this quarter included (i) installation and monitor of instrumentation at site 4 ([Lien Rd., Madison](#)); (ii) measurement of column stiffness; and (iii) processing of existing data. A meeting took place at WISDOT with Jeff Horsfall and Bob Arndorfer on 10 September to discuss project progress.

Anticipated work next quarter:

Continued data measurement and processing are planned for this quarter. Instrumentation of a 5th site is being scheduled.

Circumstances affecting project or budget:

It has been difficult finding a sufficient number of sites for instrumentation. Mr. Horsfall and Mr. Arndorfer have been

providing potential sites to us as they become available, but only 4 to 6 sites were available this summer. The remaining 11 sites for the project must be instrumented next summer, which appears unlikely. Based on the number of sites instrumented, and assuming a similar level of production next summer, I would expect that we are one year behind schedule. If we instrument 5 to 6 sites next summer and 5 to 6 sites the following summer we would complete instrumentation of the 15 required sites. These delays lead to potential problems with the project budget. We have funds for approximately 12 months of a student time remaining, which would only allow for instrumentation of sites next summer. This would likely not allow for completion of the project requirements. Continued discussion with Mr. Horsfall and Mr. Arndorfer this quarter will be undertaken to try to figure out the best way to meet project goals and requirements in a timely and cost effective manner.

Insert Gantt chart and other project documentation – attach additional pages if necessary

[see attached sheet](#)

FOR WISDOT USE ONLY

Staff receiving QPR:	Date received:
Staff approving QPR:	Date approved:

	Feb. 2009 - Dec. 2009				Jan 2010 - Dec 2010				Jan 2010 - Dec 2011				2012
Activity	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Task 1 - Literature Review / Database development & interpretation													
Commence Project	X												
Develop database of load tests													
Analyze existing methods													
FE parametric studies													
Develop list of potential field sites													
Assess appropriate instrumentation													
Task 2 - Field monitoring and interpretation													
Field testing for shallow foundations													
Field testing for deep foundations													
Field testing for lateral piles analysis													
Data compilation and analysis													
Reporting	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Quarterly	X	X	X	X	X	X	X	X	X	X	X	X	X
POT Review										X	X	X	X
Literature Review										D	F		
Final Report												D	F

D = Draft Report; F = Final Report